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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,911	01/30/2004	Frederic Sgier	0573-1008	4613
466	7590	07/07/2006	EXAMINER	
YOUNG & THOMPSON 745 SOUTH 23RD STREET 2ND FLOOR ARLINGTON, VA 22202			SHAFFER, RICHARD R	
			ART UNIT	PAPER NUMBER
			3733	

DATE MAILED: 07/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacques (FR 2,801,492) in view of Vignaud et al (US Patent 5,176,680) and in further view of Schlapfer et al (US Patent 5,501,684).

Jacques discloses a vertebral arthrodesis device (**Figures 7 and 8**) with a pin (**5**), anchoring part (**6**), a cavity (**11**) to receive the pin (**5**), the head of the anchoring part with two lateral threaded holes (**15**), the cavity (**11**) snapping onto the pin (**5**) by perpendicular flexing (relative to the longitudinal axis of the arthrodesis device) of the supports (**10**), the flexion capable because of two inward pointing slots (**Figure 8**) in the head of the anchoring part (**6**), the head of the anchor part extending perpendicular to the top opening of the cavity, and tightening means (**4**) which overlaps the pin and clamps it down into the anchoring part with two lateral holes that correspond to the two in the anchoring part.

Jacques fails to disclose lateral undercuts to allow pivoting, a ring placed along the pin, and a cavity capable of securing the pin (spinal rod) with a ring about it. Vignaud et al teaches a similar device with a bone-anchoring portion (**1**), a split ring (**9**) slidable along the length of the spinal rod (**6**), clamping means (**7, 8, and 18**), and lateral

undercuts (**Figures 1 and 3**, the areas of parts **5** and **17**). The ring and lateral undercuts allow for pivoting of the spinal rod as shown in **Figure 2**. It is explained (**Column 1, Lines 1-20**) that fixed systems only allow rods to be placed perpendicular to pedicle screws and thus make it difficult to re-establish physiological curves of the spine. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Jacques with the split ring and lateral undercuts of Vignaud to allow for placement of a rod in an orientation other than perpendicular to the pedicle screw in order to facilitate the positioning of the spine.

Schlapfer et al teaches in **Figure 2** a sliding ring to allow pivoting of the screw in a bone fixation device longitudinal cuts none of which go through entirely, but initiate at alternating ends of the ring. This allows greater flexibility of the ring while maintaining integrity. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the split ring in the combination of Jacques and Vignaud et al with the teaching of Schlapfer et al to allow greater flexibility of the spinal rod while maintaining integrity.

In addition, if one were to modify Jacques device, dimensions and tolerances of the components would require correction. Thus, either the cavity would need to be larger if the same size of spinal rod utilized, or the spinal rod smaller which is also well within the skill of one of ordinary skill in the art.

### ***Response to Arguments***

Applicant's arguments filed April 18<sup>th</sup>, 2006 have been fully considered but they are not persuasive.

Applicant alleges that Jacques does not substantially disclose the claimed invention. Anyone capable of sight can readily see the similarities between Jacques and applicant's invention with the figures, irrelevant of claim language. As already explained, essentially Jacques fails to disclose a spherical ring on the spinal rod and corresponding structural features (anchoring part which has a head to delimit or lateral undercuts as applicant intends). Applicant is attempting to point out each individual difference instead of treating the difference between the two inventions as what they are. The addition or lack of (depending on point of view) of a pivoting spinal rod system. Jacques as explained has a spinal rod system that does not pivot. Vignaud et al clearly teaches a split ring allowing for pivotal motion of the spinal rod to facilitate insertion. Schlapfer et al clearly teaches an improved split ring. The combination is not unreasonably, and plenty of motivation is either explicitly listed in the references or implicitly. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a

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reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Also, references are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. *In re Bozek*, 163 USPQ 545 (CCPA 1969).

Applicant attempts to argue that the combination is inoperable. The argument is that wires (12, 13) are used to secure the rod to the pedicle screw, thus obviating any need for a pivotal ring. This is not found persuasive in the slightest. The wires are there to maintain the rod in position; however, the rod is still being placed in a perpendicular relationship that Vignaud et al teaches is undesirable. The wires also do not prohibit the device from functioning with a split ring. Rather, they would merely hold the ring at the fixed angular orientation that the surgeon so desired. Thus the combination does not destroy the base reference nor takes away the reasoning of combining Jacques with the split ring and undercuts taught by Vignaud et al and Schlapfer et al.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

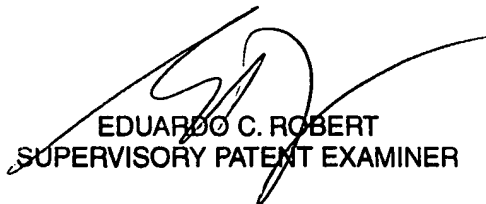
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard R. Shaffer whose telephone number is 571-272-8683. The examiner can normally be reached on Monday-Friday (7am-5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on 571-272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Richard Shaffer  
June 27<sup>th</sup>, 2006



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SUPERVISORY PATENT EXAMINER